

University of Bahrain
College of IT
Department of Computer Science
ITCS341 – Object-Oriented Systems
First Quiz

Consider the two main entities for a Registration system i.e. the **Student** and a **Course Section**. Using UML do the following tasks:

- a. Develop a class diagram for these two entities each class should have at least three attributes and three operations.
- b. Show the relationship between the two classes highlighting type (decide on the type of relationship whether simple association, aggregation, or composition), multiplicity, and end names. Briefly state your reasons behind the choice of relationship.
- c. Develop and object diagram for at least a **Student** with three registered **Courses** showing the values of the data members.

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Third Quiz

Students:

An item in a library system would have a library location and would be of a certain type of holding. Common types of holdings include, a text book (that has a list of authors, publisher, and ISBN), magazine (that has a publisher and issues number), scientific journal (that has an ISSN, publisher, and volume), newspaper (that has a title, publisher, and issue number), and reports (that has authors, and publisher).

Using UML draw all classes for this system showing multi-level and/or multiple inheritance relationship.

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Sixth Quiz - B

1. Fill in the gap:

Time event : is an occurrence or a happening at a point in time. ✓

States : is the abstraction of the values and links of an object. ✓

Transition : objects move from one state to another with no initial or final states. ✗

2. Using UML give a simple example of each of the following:

Transition, Guarding Condition, Single Shot ✗